AT&T TIMESHARING PLANS AND UTILIZATION

FINAL REPORT

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TO

GTE DATA SERVICES

YGTO

SEPTEMBER 25, 1985

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c. 1

AUTHOR

TITLE AT&T TIMESHARING PLANS AND UTILIZATION FINAL REPORT

DATE LOANED	BORROWER'S NAME

KEY OBJECTIVES

- ASSESS OVERALL OPPORTUNITY TO PROVIDE "AT&T-LIKE" TIMESHARING SERVICES TO BOC'S.

- OBTAIN INFORMATION ON THE FOLLOWING KEY VARIABLES:

  - CURRENT AND FUTURE USAGE.

  - KEY APPLICATIONS.

  - SECOND-TIER APPLICATIONS.

  - USER ATTITUDES TOWARD IN-HOUSE SERVICE.

  - CONVERSION PLANS.

  - POTENTIAL COMPETITORS OR PRESENT COMPETITORS.

  - POTENTIAL ADDITIONAL OPPORTUNITIES.

- DETERMINE PROBABLE FUTURE COURSE OF T/S ACTIVITY.

PARTICIPATION

THE FOLLOWING BELL UNITS PARTICIPATED IN THIS STUDY:

	T/S COORD.	USERS
CINCINNATI	X	X
ILLINOIS	X	REF
INDIANA	X	X
MICHIGAN	X	X
NEW JERSEY	X	X
NYNEX	X	REF
OHIO	X	X
PACIFIC	X	REF
SOUTHWEST	X	X
SNET	X	X
WISCONSIN	X	X

- TOTAL INTERVIEWS = 28 (11 UNITS, 17 USER).
- 8-10 COMPANIES PROMISED, 11 DELIVERED.

PARTICIPATION — (cont'd)

- RECRUITEMENT EXTREMELY DIFFICULT DUE TO TWO FACTORS:
  - CHANGING COMPANY ATTITUDES.
  - LONG AND CONFLICTING VACATION SCHEDULES OF RESPONDENTS.
- ALL BELL UNITS CONTACTED. BALANCE REFUSED PARTICIPATION.
  - COMPETITIVE DECLINES FROM SOUTHERN BELL AND U.S. WEST.
- THERE IS <u>PROFOUND</u> ATTITUDINAL CHANGE AMONG BELL COMPANIES IN THE PAST 18 MONTHS.
  - LESS WILLINGNESS TO COOPERATE.
  - FEAR OF "COMPETITION."
  - FEAR OF REGULATORY OR JUDICIAL INCURSIONS.

VENDOR UTILIZATION

VENDOR	PROPORTION USING
AT&T	100%
GEISCO	100
TYMSHARE/TYMNET	91
MCAUTO	73
CSC	55
ADP	55
CSS	45
NCSS	45
RAPIDATA	18
UNITED	0%

- AVERAGE OF 6.5 VENDORS/BOC ON THIS LIST.

- NO RELATIONSHIP BETWEEN SIZE OF COMPANY AND NUMBER OF VENDORS, E.G. PACIFIC = 5, WISCONSIN = 10.

IN-HOUSE SERVICES

	EXISTS	MAIN TYPE
CINCINNATI	Y	IBM VM/CMS
ILLINOIS	Y	IBM VM + MINIS
INDIANA	Y	IBM
MICHIGAN	Y	IBM VM, DEC 10
NEW JERSEY	N	GEISCO SVC.
NYNEX	Y	IBM VM
OHIO	Y	HONEYWELL
PACIFIC	Y	IBM VM/CMS + DEC UNIX
SOUTHWEST	Y	AMDAHL VM + CDC
SNET	Y	IBM TSO + DEC TOPS 10
WISCONSIN	N	VARIOUS SVCS. ONLY, BUT MINIS & RJE IN-HOUSE

- NOTE THAT IBM VM IS THE OVERWHELMING CHOICE WITH ONLY TWO BOCS NOT PROVIDING INTERNAL SERVICE ON ANY MAJOR SCALE.

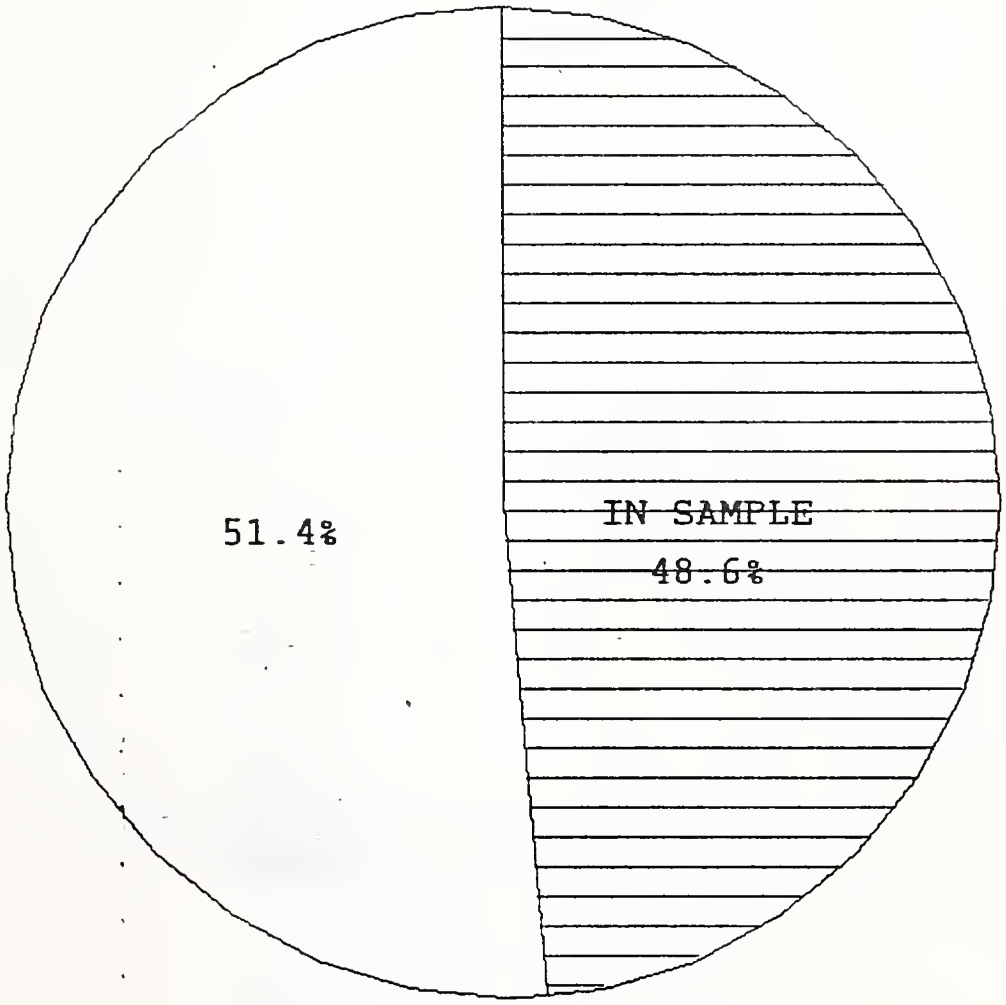
IN-HOUSE SERVICES - (cont'd)

- THESE VM SYSTEMS ARE THE PLANNED REPOSITORIES FOR AT&T APPLICATIONS IN THE FUTURE.

- RESPONDENTS INDICATE STRONG COST PRESSURE TO REDUCE EXPENDITURES.

BELL COMPANY C/S EXPENDITURES

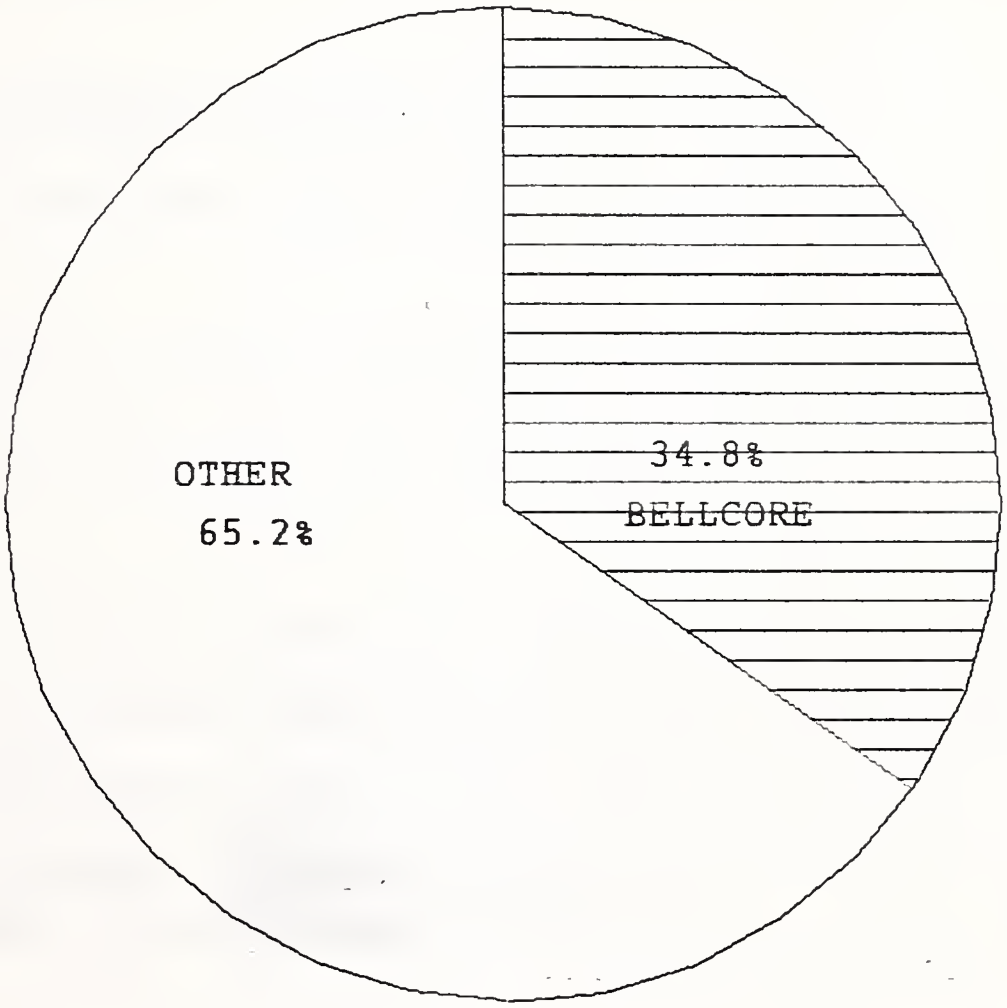
YEAR 1984, $ MILLIONS



$411 MILLION

Data: INPUT analysis of FCC and survey data.

"BELLCORE" EXPENDITURE PROPORTION



BELLCORE=$143 MILLION

Data: INPUT analysis of FCC data.

EXPENDITURE TRENDS

- TIMESHARING EXPENDITURES BY THESE RESPONDENTS FELL 9.5% IN 1985 VS. 1984.

- 36% OF FIRMS EXPERIENCED GROWTH 1984-1985; 28% WERE FLAT; 36% DECLINED.

- THIS IS INDICATIVE OF THE VARIOUS AND NOW INDEPENDENT POSITIONS OF FIRMS IN WHAT WAS PREVIOUSLY A RELATIVELY HOMOGENEOUS AND CENTRALLY DIRECTED MARKET.

INDIVIDUAL COMPANY STATUS

COMPANY	COMMENT
CINCINNATI	EXPENDITURES DOWN, INCREASED USE OF PC'S
ILLINOIS	BELLCORE USAGE DOWN, UP OVERALL
INDIANA	UP DUE TO NEW APPLICATIONS
MICHIGAN	FLAT
NEW JERSEY	DOWN TO REDUCE COSTS
NYNEX	UP DUE TO NEW SERVICE COMPANY APPROACH
OHIO	IN-HOUSE UP, OUTSIDE DOWN, DOWN OVERALL
PACIFIC	FLAT-STABILIZED BY BRINGING INSIDE OVER LAST 3 YEARS
SOUTHWEST	INCREASED AT&T USAGE (UP)
SNET	DOWN TO REDUCE DEPENDENCE ON EXTERNAL SUPPLIERS
WISCONSIN	DOWN DUE TO IN-HOUSE USE

INDIVIDUAL COMPANY STATUS - (cont'd)

- NOTE THAT WHILE THERE IS A STRONG GENERAL TREND TO IN-HOUSE AND A GENERAL COST REDUCTION MOTIVE THERE IS SUBSTANTIAL VARIATION IN STATUS AND APPROACH AMONG COMPANIES.

- FOR THE PERIOD BEYOND 1985, THE PICTURE REMAINS ESSENTIALLY THE SAME WITH 50% EXPECTING REDUCED EXPENDITURES, 20% FLAT AND 30% EXPECTING MODERATE (E.G. 10%) GROWTH AT THE COMPANY LEVEL.

- AT THE USER LEVEL THERE WAS A SOMEWHAT GREATER EXPECTATION OF GROWTH BUT MANY USERS INDICATED AN INABILITY TO FORECAST FUTURE TRENDS. THIS UNCERTAINTY IS NOT CONSIDERED A POSITIVE FROM A MARKET STANDPOINT.

RESPONDENT COMMENTS OF FUTURE GROWTH

- LAGGING THE WORLD TO SOME EXTENT, THREE COMPANIES INDICATED GROWTH WOULD BE REDUCED BY RE-WRITING SMALL APPLICATIONS FOR P.C.'S.

- REGIONAL IN-HOUSE CENTERS WERE IDENTIFIED AS EXPENDITURE REDUCERS (FUTURE) BY RESPONDENTS FROM:

  - NYNEX
  - ATLANTIC
  - AMERITECH

- VM IDENTIFIED AS A GROWTH AREA BY SEVERAL RESPONDENTS, OFTEN CITING "EASE OF USE."

- GENERALLY RESPONDENTS WERE UNABLE TO PRECISELY FUTURE EXPENDITURE TRENDS, PARTICULARLY AT THE USER LEVEL, THIS IS BELIEVED A FURTHER INDICATION OF UNCERTAINTY. A SHARP CHANGE FROM THE PAST.

MAJOR APPLICATIONS

- WHEN QUERIED ON MAJOR APPLICATIONS COORDINATORS RESPONDED WITH A DIVERSE LISTS, AS DID USERS.

- KEY APPLICATIONS ARE:

  - BOCAP - (BUSINESS OFFICE COST ANALYSIS PROGRAM) FORCE LEVELS AND BUDGET PLANNING AND TRACKING. ALLOWS EFFICIENCY MEASUREMENT BY PEER GROUP COMPARISONS. (AMDAHL 470/V8).

  - CRS - (CENTRALIZED RESULTS SYSTEMS) MONTHLY REPORTS OF 120 SERVICE MEASUREMENTS INCLUDING INSTALLATION, REPAIR, COIN, NETWORK AND OPERATOR SERVICES. DETAIL AND ROLL-UP REPORTS. (AMDAHL 470/V8).

- IFAMS - (INTEGRATED FORCE ADMINISTRATION MECH. SYS.) FORECASTS, SCHEDULES, ALLOCATES, ASSIGNS AND TRACKS OPERATOR REQUIREMENTS. (AMDAHL 470/V8).

- EFRAP - (EXCHANGE FEEDER ROUTE ANALYSIS PROGRAM) OUTSIDE PLANT CABLE NETWORK PLANNING AND ECONOMIC ANALYSIS. PRINCIPALLY ROUTING BUT CONTAINS SEVERAL MODULES. (AMDAHL 470/V8) INTERACTIVE PLUS BATCH.

- CUCRIT - (CAPITALIZATION UTILIZATION CRITERIA) ECONOMIC ANALYSIS INCLUDING R.O.R., NVP, ROI AND TRIAL INCOME STATEMENTS. (470/V8).

- MOVIMS - (MOTOR VECHICLE INFORMATION MANAGEMENT SYSTEM) DESIGNED TO CONTROL, CATEGORIES AND TRACK VEHICLE COSTS INCLUDING FUEL AND REPAIRS. GENERATES BATCH REPORTS WITH INTERACTIVE QUERY CAPABILITY. FROM OTHER SOURCES INPUT IS AWARE THAT DISSATISFACTION IS HIGH. (AMDAHL 470/V8).

- THE ABOVE CONSTITUTE TWO OR MORE MENTIONS OF AT&T APPLICATIONS BY RESPONDENTS.

- 3 COORDINATORS INDICATED THAT NO SINGLE APPLICATION STOOD OUT, I.E. THERE WERE MANY MEDIUM-SIZED APPLICATIONS. THIS MAY HAVE BEEN AN EVASION.

- AN INDEPENDENT SOURCE INDICATES THAT THE ABOVE APPLICATIONS ARE "LIKELY" TO BE CONVERTED BY BELLCORE TO STANDARD VM.

VENDOR FOR "LARGEST" APPLICATION

COMPANY	VENDOR
CINCINNATI	BELLCORE
ILLINOIS	BELLCORE
INDIANA	BELLCORE
MICHIGAN	BELLCORE
NEW JERSEY	GEISCO
NYNEX	N. A.
OHIO	BELLCORE
PACIFIC	IN-HOUSE
SOUTHWEST	CDC
SNET	CSC
WISCONSIN	MCAUTO

- OF THE LARGEST, NOTE THAT BELLCORE (AT&T) HAS THE DOMINANT SHARE AT 45% OF MENTIONS.

- IT SHOULD ALSO BE NOTED THAT BELLCORE TENDS TO DOMINATE AT THE SMALLER COMPANIES IN THE SAMPLE. LARGER COMPANIES ARE QUITE DIVERSE IN SOURCES FOR "LARGEST" APPLICATION.

DEPARTMENTS USING, COSTS

APPLICATION	DEPT. USING	# OF USERS
BOCAP	FINANCE	MEDIUM
CRS	FINANCE, OTHER	LARGE
IFAMS	OP. SVCS.	MEDIUM
EFRAP	ENGINEERING	SMALL
CUCRIT	FINANCE/ADMIN.	MEDIUM
MOVIMS	SUPPORT SVCS.	SMALL

- NOTE THAT AMONG LEAD APPLICATIONS FINANCE IS THE LARGEST USING DEPARTMENT.

- BASED ON REPORTED DATA "SMALL" IS 3-5 USERS, "MEDIUM" IS "6-20" USERS AND LARGE IS MORE THAN 20 USERS.

- CRS IS MULTI-DEPARTMENTAL AND CAN RESULT IN VERY SUBSTANTIAL MONTHLY EXPENDITURES. BASED ON LIMITED RESPONDENT DATA, INPUT BELIEVES EXPENDITURES COULD EXCEED $150K/MONTH AT LARGE COMPANIES FOR THIS SYSTEM.

- IFAMS EXPENDITURES CAN RUN IN THE $15-20K/ MONTH RANGE AT LARGE COMPANIES.

- MOVIMS EXPENDITURES COULD REACH $50K A MONTH FOR COMPANIES WITH SIZABLE FLEETS.

- LARGE EXPENDITURE SYSTEMS ARE ALREADY INSIDE AT PACIFIC AND SOUTHWEST ACCORDING TO RESPONDENTS.

IMPORTANT SMALLER APPLICATIONS

- IN AN ATTEMPT TO DETERMINE IF THERE EXISTED CRITICAL APPLICATIONS FOR WHICH EXPENDITURES WERE SMALL, R'S WERE QUERIED AS TO "OTHER" APPLICATIONS IMPORTANT TO THEIR BUSINESS AMONG THE 250 AT&T APPLICATIONS.

- R'S MENTIONED THE FOLLOWING:

  - EPLANS
  - CRS
  - BOCAP

- GIVEN THE PARAMOUNT POSITION OF E-PLANS IN THE PRIOR (1983) STUDY THIS SINGLE MENTION OF EPLANS IS STRIKING. ALSO NOTABLE IS THE ABSENCE OF E-5800. BOTH ARE APPARENTLY CASUALTIES OF DIVESTITURE.

- ENGINEERING AND MARKETING RECEIVED MENTION AS USERS OF MINOR APPLICATIONS. THIS INDICATES THAT CURRENT FOCUS OF USAGE IS IN THE FINANCIAL AREA, A SHIFT FROM PRIOR ENGINEERING EMPHASIS.

DECEMBER 1988 TERMINATION PLANS

COMPANY	COMMENTS
CINCINNATI	NOT A HEAVY USER, WILL BRING MAIN ONES INSIDE, WILL BOOST PC USE ALSO
ILLINOIS	WILL BE MOVED TO ANOTHER VENDOR IF NECESSARY
INDIANA	NOT SURE. SOME WILL BE RUN ON OTHER VENDORS PERHAPS. COST-SHARE AMONG THE REGION A POSSIBILITY
MICHIGAN	CONVERSION TO IN-HOUSE BY BELLCORE, AMERITECH OR US.
NEW JERSEY	SETTING UP "BARTS" - BELL ATLANTIC REGIONAL TIMESHARING TO HANDLE

DECEMBER 1988 TERMINATION PLANS - (cont'd)

NYNEX	WILL PORT TO IN-HOUSE
OHIO	LOOKING FOR A REGIONAL MACHINE
PACIFIC	WILL BE ALL INSIDE BY END OF 1986
SOUTHWEST	BRING MOST IN-HOUSE
SNET	ELIMINATE SOME, BRING OTHERS INSIDE
WISCONSIN	AMERITECH WILL PROVIDE BY END OF 1986

TERMINATION OBSERVATIONS

- OF PARTICULAR SIGNIFICANCE IS THE AMERITECH COMPANY RESPONSE. NOTE THAT ILLINOIS SAYS WILL MOVE TO ANOTHER VENDOR, WHILE OTHERS SUGGEST REGIONAL MACHINE POSSIBILITY OR IN-HOUSE CONVERSION. POSSIBLE OPPORTUNITY HERE.

- "BARTS" IN BELL ATLANTIC STILL IN EARLY STAGES. GIVEN HONEYWELL USE (GE) IN N.J. AND OHIO THERE MAY BE A MODEST OPPORTUNITY FOR GTEDS HERE.

- SECOND MODERATE OPPORTUNITY (BUT LARGER) MAY BE IN THE AMERITECH COMPANIES.

- RECOLLECT THAT U.S. WEST AND POSSIBLY SOUTHERN AS WELL AS NYNEX ARE POTENTIALLY INTERESTED IN THIS BUSINESS.

- USERS INTERVIEWED ARE GENERALLY COMPLACENT; EXPECT REGION OR BELLCORE TO HANDLE NECESSARY CONVERSIONS. THEY DO <u>NOT</u> EXPRESS STRONG CONVICTIONS ABOUT THIS THOUGH.

AVAILABILITY OF COMMERCIAL SOURCES

- THE MAJORITY OF COORDINATORS (54%) STATED THEY WERE UNAWARE OF COMMERCIAL ALTERNATIVES. 66% OF USERS ALSO STATED THERE WERE NO COMMERCIAL ALTERNATIVES.

- "ALTERNATIVES" STATED INCLUDED:

  CSC

  MCAUTO

  CSS

  CONTEL

- R.'S GIVE THE IMPRESSION THAT THEY WERE OFFERED ALTERNATIVE PACKAGES, NOT THE CHANCE TO RUN THEIR EXISTING PACKAGES.

- NO MENTION OF NYNEX OR U.S. WEST IN THIS CONTEXT. ARE THESE CONTACTS BEING MADE ELSEWHERE (AT REGIONAL LEVELS?) OR ARE THE ACTIVITIES SIMPLY NOT VERY AGRESSIVE?

- MOVIMS - OF ALL PACKAGES MENTIONED - SEEMS THE MOST SUBSTITUTABLE BASED ON USER COMMENTS. "DOZENS OF THESE" SAID ONE R.

SATISFACTORY CONVERSION OUTCOME?

- TIMESHARING COORDINATORS WERE UNANIMOUS IN THEIR VIEW THAT CONVERSION EFFORTS (FOR THEIR COMPANY'S NEEDS) WILL BE SUCCESSFUL.

- PROBES SHOWED SOME DIVERGENCE OF VIEWS:

  OHIO - "BETTER THAN NOTHING"

  SOUTHWEST - "ANYBODY COULD RE-WRITE THESE"

  WISCONSIN - "HOPE SO"

  SNET - "COUNTING ON IT"

  NYNEX - "WE HAVE A SPECIAL TASK FORCE"

  PACIFIC - "WE'VE DONE IT"

- NOTE THAT BELLCORE CONVERSION EFFORT WAS NOT YET UNDERWAY AT THE TIME OF THIS STUDY. CONVERSION BLOCKED BY TECHNICAL DELIBERATIONS ON THE S.O.E. (8/85).

- NOTE FURTHER THAT MAJOR UNITS, E.G. PACIFIC, SOUTHWEST, NYNEX, NEW JERSEY WERE NOT WAITING FOR BELLCORE ON APPLICATIONS DEEMED CIRTICAL, BUT HAVE/ARE MOUNTING OWN CONVERSION EFFORTS.

, SATISFACTORY CONVERSION OUTCOME? - (cont'd)

- ON A SCALE OF 1 TO 5 WITH 5 BEING "VERY SATISFIED" AND 1 "NOT VERY SATISFIED"

  - USERS RATED SATISFACTION WITH OUTCOMES OF AT&T APPLICATIONS TRANSFER AT 4.6.

  - T/S COORDINATORS RATED SATISFACTION 4.1.

  - BOTH THESE RATINGS ARE HIGH; DIFFERENCE IS NOT STATISTICALLY SIGNIFICANT.

- INPUT BELIEVES THAT AT PRESENT USERS AND COORDINATORS HAVE ACCEPTED THEIR POSITIONS AND EXPECT SATISFACTORY SOURCES (EITHER INTERNAL OR REGIONAL) TO FULLFILL THEIR REQUIREMENTS IN TIME AND AT A SATISFACTORY COST. IF NOT, THEN "OUTSIDE" SOURCES WILL BE FOUND.

SERVICE FACTOR IMPORTANCE

FACTOR	COORD. RATING	USER RATING	COMBINED
24 HR SERVICE	3.1	3.7	3.4
GRAPHICS	3,1	3,0	3.1
RESPONSE TIME	4.4	4.7	4.6
DOCUMENTATION	4.4	4.3	4.4
PHONE SUPPORT	4.2	4.1	4.2
IN PERSON SUPPORT	3.2	3.1	3.2
OVERALL COST	4.4	4.5	4.5
HIGHER QUALITY	3.3	3.5	3.4
RELATED APPLICATIONS	2.6	2.3	2.5

- RESPONSE TIME, DOCUMENTATION AND COST LEAD THE LIST AS IMPORTANT SERVICE FACTORS; ALSO IMPORTANT IS TELEPHONE SUPPORT.

- MOST OTHER FACTORS ARE OF MODERATE IMPORTANCE.

- THERE IS LITTLE DEMAND FOR HIGHER QUALITY SERVICE WHICH IMPLIES THAT CURRENT SERVICE IS SATISFACTORY.

SERVICE FACTOR IMPORTANCE - (cont'd)

- THERE IS EVEN LESS INTEREST IN RELATED APPLICATIONS. THIS SUGGESTS THAT USERS AND COORDINATORS DO NOT EXPECT MUCH GROWTH OR CHANGE IN THEIR AREAS OF RESPONSIBILITY.

- UNLIKE SERVICE METHODS, THERE IS AGREEMENT AMONG THE GROUPS AS TO THE RELATIVE IMPORTANCE OS SERVICE FACTORS.

SERVICE METHODS

SOURCE	COORD. RATING	USER RATING
ANOTHER BOC	3.1	2.0
BELLCORE	4.1	3.1
CURRENT T/S SUPPLIER	3.9	2.1
A NEW T/S SUPPLIER	3.0	1.9
IN-HOUSE W/ MODIFIED VM	1.8	2.9
IN-HOUSE WITH STD. VM	4.2	3.7
INDEPENDENT TELCO	3.0	1.8
YOUR REGINAL CO	3.0	3.4
ANOTHER REGIONAL	2.3	1.8
GRAND MEAN	3.2	2.5

- RESPONDENTS WERE ASKED TO RATE NINE POSSIBLE SOURCES FOR TIMESHARING SERVICES AS TO HOW SATISFACTORY THEY WOULD BE.

SERVICE METHODS COMMENTS

- OBSERVE THAT USERS AND COORDINATORS HAVE VERY DIFFERENT SATISFACTION PROFILES; ALSO THAT USERS GIVE LOWER SATISFACTION RATINGS ON AVERAGE.

- THE PREFERRED CHOICE OF BOTH GROUPS IS INHOUSE WITH STANDARD VM.

- COORDINATORS RATE OUTSIDE SUPPLIERS MUCH MORE FAVORABLY THAN USERS BUT USERS HAVE LESS EXPERIENCE AND OFTEN ONLY WITH BELLCORE.

- BOTH GROUPS SEEM DISINCLINED TO CONSIDER A NEW SOURCE SATISFACTORY, ALTHOUGH COORDINATORS ARE NEUTRAL ON THIS.

- BELLCORE FARES WELL WITH COORDINATORS DESPITE OTHER EVIDENCE OF UNSATISFACTORY BELLCORE PERFORMANCE AT THE BOCS AND RBOCS. USERS NEUTRAL.

SERVICE METHODS COMMENTS – (cont'd)

- COORDINATORS ARE NEUTRAL TOWARD INDEPENDENT TELCO SUPPLIERS WHILE USERS ARE NEGATIVE.
- COORDINATORS ARE NEGATIVE RE STRAWBERRY VM WHILE USERS ARE NEUTRAL (INHOUSE).
- NO ONE IS EXCITED BY THE PROSPECTS OF REGIONAL SERVICE.
- WHILE THIS PICTURE IS QUITE MIXED (AFTER INHOUSE WITH STN, VM), IT IS CLEAR THAT COORDINATORS ARE BETTER PROSPECTS THAN USERS. AS A GROUP THESE USERS SEEM RELATIVELY PASSIVE AND POWERLESS.

COMBINED SERVICE METHODS SATISFACTION

	METHOD	RATING
1)	INHOUSE W/ STD VM	4.0
2)	BELLCORE	3.7
3)	YOUR REGIONAL CO.	3.2
4)	CURRENT T/S SUPPLIER	3.0
5)	ANOTHER BOC	2.6
6)	NEW T/S SUPPLIER	2.5
7)	INHOUSE W/MODIFIED VM	2.4
8)	ANOTHER REGIONAL	2.1

- PREFERRED SERVICE METHOD IS STD. VM INHOUSE FOLLOWED CLOSELY BY BELLCORE.

- REGIONAL SERVICE IS NEUTRAL, AS IS CURRENT SUPPLIER.

- EXTREMELY LOW RATING OF "ANOTHER REGIONAL" SUGGESTS THAT EFFORTS BY NYNEX AND U.S. WEST WILL NOT BE VERY SUCCESSFUL.

- COORDINATORS AND USERS HAVE A DIFFERENT VIEWPOINT ON THESE ALTERNATIVES AS WE SHALL SEE.

CONCLUSIONS AND RECOMMENDATIONS

- BASED ON THE EVIDENCE, INPUT BELIEVES THAT THERE IS ONLY A LIMITED OPPORTUNITY TO PROVIDE BELLCORE-LIKE T/S SERVICES TO THE BOCS, PRINCIPALLY ON AN AD-HOC BASIS.

- DUE TO THE FRAGMENTED NATURE OF THE OPPORTUNITY, IT IS NOT POSSIBLE TO ACCURATELY SIZE THE OPPORTUNITY BUT IT IS CERTAINLY NOT LARGER THAN THE SINGLE-DIGIT MILLIONS ON AN ANNUAL BASIS.

- OF THOSE SURVEYED, THE AMERITECH COMPANIES SEEM THE MOST LIKELY CANDIDATES.

- LARGER COMPANIES INDICATE THAT THEY HAVE IN PLACE METHODS FOR DEALING WITH THE PROBLEM OF BELLCORE SERVICE DISCONTINUATION, TYPICALLY INHOUSE REGIONAL SERVICE.

- TIMING IS A MAJOR FACTOR IN THIS STUDY. CURRENTLY THE COMPANIES ARE "BETWIXT & BETWEEN".

  - THE CUT-OFF DATE IS OVER THREE YEARS IN THE FUTURE MEANING THAT THERE IS NO SENSE OF URGENCY REGARDING CONVERSION.

  - IF CONVERSIONS ARE NOT SUCCESSFUL OR OPERATING EXPERIENCE WITH INHOUSE SERVICE PROVES LESS SATISFACTORY/MORE COSTLY THAN ANTICIPATED ATTITUDES <u>MAY</u> CHANGE.

- TO INVEST IN A MATERIAL WAY NOW, GTEDS WOULD, IN ESSENCE, BE BETTING ON THE FAILURE OF EXISTING PLANS AND WOULD NEED TO "CRACK" A MARKET WITH IMBEDDED SUPPLIERS WHO ARE/WILL EXPERIENCE A DOWN TURN. THIS IS DEEMED HAZARDOUS.

- USERS AND COORDINATORS ARE COMPLACENT AND PASSIVE. AT THIS POINT THERE IS NO MAJOR CONCERN ABOUT SERVICE DISCONTINUITY. THERE IS ALSO NO PARTICULAR DEMAND FOR NEW OR RELATED APPLICATIONS. THIS WOULD MAKE MARKETING EFFORTS EXTREMELY DIFFICULT.

- WHILE NOT PARTICULARLY ENCOURAGING AS TO OPPORTUNITY, INPUT WISHES TO CAUTION THAT THIS STUDY DOES NOT CONSTITUTE AN EXHAUSTIVE CENSUS OF ALL OPPORTUNITIES AT ALL COMPANIES BUT IS A SAMPLE. AS A RESULT, THERE REMAINS THE POSSIBILITY THAT A "REPLACEMENT" SERVICE WOULD BE WELL-RECEIVED AT COMPANIES NOT STUDIED AND/OR THAT THERE MAY BE SPECIFIC POCKETS OF OPPORTUNITY ELSEWHERE IN THE COMPANIES STUDIED.

CONCLUSIONS AND RECOMMENDATIONS - (cont'd)

- ACCORDINGLY, WE DO <u>NOT</u> RECOMMEND THAT ACTIVITY IN THIS AREA BE ABANDONED. INSTEAD WE SUGGEST THAT "NETWORKING" AND PERSONAL CONTACTS BE USED TO IDENTIFY LOCAL REQUIREMENTS WHERE GTEDS CAPABILITIES INTERSECT BOC INTERESTS.